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piece 1, NC_000913, thiM_rcnR+, config: linear, direction: +, begin: 2183294, end: 2183565

p10 3.1 bits

 p35 6.2 bits

```
--- } p35-(21)-p10 2183340 Gap 3.3 bits  
--- | p35-p10 2183340 total 6.0 bits
```

Sequence alignment diagram showing the amino acid sequence of a protein across 10 different genes. The top row shows gene identifiers: *2183460, *2183470, *2183480, *2183490, *2183500, *2183510, *2183520, *2183530. The bottom row shows the nucleotide sequence (5' to 3') with color-coded codons and a red dot indicating a mutation at position 10.

The diagram illustrates the transcription start sites (TSS) for the *p10* promoter (blue box) and the *thiM_rcnR+* gene (pink box). The *p10* promoter contains two TSSs, indicated by red arrows pointing to the left. The *thiM_rcnR+* gene has one TSS indicated by a red arrow pointing to the right. A green box labeled 'sd' represents a sigma factor binding site, which overlaps with the *p10* promoter. A yellow box labeled 'ir' represents an inverted repeat sequence. A blue bracket below the diagram indicates a gap of 2.7 bits between the *sd* and *ir* regions.

p35 5.5 bits

```
|-----| p35-p10 2183529 total 8.8 bits  
|-----| ... p35-(23)-p10 2183550 total 6.6
```

The diagram shows the 5' end of a cDNA sequence. The top line represents the sequence with positions 2183540, 2183550, and 2183560 marked. Colored arrows above the sequence indicate the reading frame: green for the first codon, red for the second, and blue for the third. Below the sequence, the first 25 codons are listed, each preceded by a dash and followed by a hyphen. Red dots are placed above the bases 't', 'a', 't', 'a', 'a', 't', 't', 't', 'g', 'a', 't', 'a', 't', 'a', 't', 'c', 'c', 'a', 'a', 't', 'c', 'c', 'a'. A red circle highlights the stop codon at position 2183560. A blue bracket below the sequence spans from position 2183540 to 2183560, labeled 'orf 25 codons'. A small red box labeled '####' is located near the bottom right.

p10 2.5 bits

```
... ----- } p35-(23)-p10 2183550 Gap 1.4 bits  
... ----- | p35-p10 2183550 total 6.6 bits
```